Cfcc ColdFire C Compiler

rev. 1.00beta16

The ColdFire C Compiler is a beta version and will be undergoing changes soon. A newer (smaller) version will be produced with better code production.

Any queries should be made to:- support@austexsoftware.com

Contents

2. General

The ColdFire C Compiler , cfcc, is a freeware compiler for ColdFire processors.

The job of the compiler is to produce object code file from C code source files. These object code files can then be used to produce executable programs for ColdFire processors.

Source code files are usually in ascii text format containing C code.

2.1 Command Line Options

Usage: cfcc [options] file

```
Options:
-a                force ansi compliance
-ca               use absolute addressing
-cb               no bss generation
-cc               enable C source in assembly
-cd               display diagnostics
-cl               use large data model
-ck               enable stack check code
-co               disable assembler
-cr               disable link register
-cs               use small data model
-cu               no leading underscores
-cx               enable C++ exception handling
-cz               add profiler calls
-d<define>        define
-e<max>           set maximum number of errors
-f<name>          parameter file
-g<cpu>           generate cpu specific code
-i<include>       include path
-lc               enable preprocessing list file
-le               enable error list file
-ll               enable listing file
-oa               disable address register optimisations
-od               disable data register optimisations
-of               disable floating-point register optimisations
-op               disable peephole optimisations
-w<warn>          suppress warning
```

2.2 Compiling

The usual format for compiling looks like this;

    cfcc mysourcefile

    where:-

        cfcc   - is the name of the executable.
        mysourcefile   - is the name of your C source file. This file is a standard ascii text file containing C formatted code.

Cfcc is designed to be used with other ColdFire freeware products from Austex Software. These are cfasm (Assembler), cflink (Linker) and cfmake (Maker).

3. Errors

Error messages are meant to be self-explanatory. The general error messages that you may encounter are:-

(PRELIMINARY DOCUMENT)

4. Limitations

1. The compiler does not support other assembler, linker or make utilities for use with ColdFire processors.

4.1 Known Bugs

There are no known program bugs for this current version.

If you find any program bugs, then please send reports to:-

    bugs@austexsoftware.com

5. Changes

1.00b16 Peep back/forward fixes.
1.00b15 Fixed bug with aincdec(), however errors still exist.
1.00b14 Fixed bug with peep optimiser and label boundaries.
1.00b13 Fixed problem in peep_add() optimisation.
1.00b12 Fixed problem with gen_index() register usage.
1.00b11 Fixed bug with gen_modiv() register usage.
1.00b10 Fixed bug with blockmoves counting one less due to old dbra instructions.
1.00b9   Unsigned references to long added so that unsigned long will produce unsigned code...
         :)
1.00b8   Code optimisation for lea/move to stack combinations into pea instructions.
1.00b7   Code optimisation for lea/move to stack combinations into pea instructions.
1.00b6   Fixed a long standing stability issue regarding compilation with errors.
1.00b5   Preliminary.
0.90a   Preliminary.